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ORIGINAL LECTURES.

LECTURES
ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

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Reported by R. M. BERTOLET, M.D.

(Continued from page 419.)

LECTURE VII.

INJURIES TO THE LARYNX AND TRACHEA.

BURNS and Scalds.—Burns and scalds of the larynx and adjacent structures of the throat are met with, usually as the result of accident, but sometimes as the effect of design. They are often fatal. Acids or alkaline caustic fluids are sometimes swallowed, a liniment being mistaken for a mixture, or a glass containing acid for a drink of spirits. Children frequently suffer with scalds from attempting to drink boiling water. Another frequent cause is the swallowing of caustic substances with suicidal intent. The inhalation of flame, hot steam, or heated air, will produce burns in the air-passages. The larynx is less likely to be implicated when the caustic liquid has been swallowed involuntarily than when the drink has been taken designedly, and the epiglottis not surprised at its post, as it were; the effects are produced chiefly in the pharynx and œsophagus, and sometimes the stomach, the act of deglutition being fully accomplished in spite of the pain and spasm. Boiling water, not being taken designedly, is rarely if ever swallowed, spasmodic regurgitation taking place before the act of deglutition is completed.

There is usually very little trouble about the diagnosis of a burn or scald of the larynx, except in instances where the nature of the accident is concealed by the determined suicide. The severe pain and distress in the parts, the great acceleration of the pulse, and other evidences of vascular excitement, the dysphagia, the dyspnœa with its usually attendant stridulous inspiration, the pallor of the countenance, the coldness of the extremities, the nervous excitement, and the history of the case, are sufficient for the purpose.

If the case is seen early, and the parts can be subjected to inspection, there is generally noticed a tumefaction and destruction of the mucous and sub-mucous tissues of the palate, the pharynx, and larynx, which are of a white color, often from detachment of the epithelial layer, in a membranous form, or from prompt plastic exudation. Acute laryngitis supervenes rapidly, and is likely to be attended with œdema, and its risk of death by asphyxia. In addition to this, there is usually a great amount of nervous shock, which in itself constitutes a serious element of danger.

As a rule, only the upper portion of the larynx becomes implicated,—that is, the region above the glottis,—all the lower portions of the larynx having often been found normal after death. In other instances, however, the mucous membrane of the trachea and bronchi has been found congested and swollen, with sometimes, also, inflammation of the lungs. In some instances a plastic exudation, resembling in its character the plastic exudation of croup, has been found in the trachea and in the bronchi.

The local treatment of acute laryngitis from burns and scalds consists in applying cold compresses or ice-bags about the neck, and keeping bits of ice in the mouth. The inhalation of the spray of acetate of lead, or its frequent projection on the parts, would seem applicable, in view of its beneficial effects in scalds and burns of the cutaneous surface. The use of mucilaginous drinks, where practicable, is very soothing. The external application of leeches about the throat, and, in some cases, of blisters following, has also proved efficacious.

The operation of tracheotomy or of laryngotomy is usually indicated, however, and should not be postponed too long. Inasmuch as the inflammation of the larynx rarely extends below the vocal cords, owing to the spasmodic closure of the glottis at the moment of injury, there is no objection, as a rule, to performing laryngotomy through the crico-thyroid membrane, especially in the adult whose parts will admit the insertion of a tube large enough for respiratory purposes. The operation, though by no means certain to save life in adults, offers more hope of success than it does in children.

Burns and scalds of the air-passages may result in stenosis of the larynx or trachea, which is usually attended with a persistent chronic laryngitis.

WOUNDS OF THE LARYNX AND TRACHEA.

Wounds of the larynx and trachea—gunshot, contused, and incised—are encountered in both military and civil practice. They are accidental or designed; most frequently occur in suicides, but sometimes are inflicted by murderers. Brierre de Boismont found that of four thousand five hundred and ninety-five suicides, one hundred and twenty-one had cut their throats. Suicidal attempts of this nature fail in producing death more frequently than they succeed; partly from ignorance of the locality of the great vessels, and partly from belief that a wound of the windpipe is necessarily fatal. The head being usually thrown backward, the large vessels are pressed out of the reach of the knife, and the air-passage alone wounded. Malgaigne states that the larynx is found severed in young suicides only,—old ones wounding the trachea more frequently; and he puts the query whether this is not due to the circumstance that an old person cannot throw his head so far back as a young one. When the suicide understands the anatomy of the parts, or makes a sweeping cut, the great vessels of the neck are severed, and death from hemorrhage follows quickly.

Incised wounds above the hyoid bone, though

they open into the mouth and pharynx, and sometimes wound the root of the tongue to such an extent as to produce serious hemorrhage, do not implicate the larynx.

If the wound is made below the hyoid bone, then the pharynx is entered, and the upper portion of the cavity of the larynx opened or exposed; the epiglottis being sometimes wounded, and even the arytænoid cartilages severed. In some instances the hyoid bone and the tongue are severed from the larynx. When the epiglottis or an arytænoid cartilage has been partially severed, there is risk of impaction of the fragment in the glottis, an occurrence which may take place soon after the injury, or not until some hours or days afterwards. Cases are on record of fatal results from both of these complications. It is, therefore, very generally deemed advisable to remove with the knife or scissors any movable fragment of epiglottis, arytænoid cartilage, or other structure, the retention of which might give rise to such an accident.

When the knife has been applied several times to the throat, the cartilages are sometimes divided into several fragments, and great care must be taken that no loose piece of cartilage be allowed to remain, lest it become detached and obstruct the glottis. In cases of multiple wounds of this kind the immediate danger from entrance of blood into the air-passages is much greater than where there has been but a single cut. This danger from hemorrhage, too, is much greater in wounds of the trachea than in wounds of the larynx, because the thyroid gland is almost always wounded also.

The diagnosis of a wound of the larynx or trachea is sufficiently simple, even before thorough exploration of the nature of the injury, by the passage of air through the wound, and the presence of frothy blood at its surface. If the patient is not suffocated by the blood which has flowed into the air-passages, it is expectorated through the wound, and partly through the mouth. Syncope is a usual result of the hemorrhage. Liston, Rush, and others caution the practitioner against being deceived by the arrest of hemorrhage on the occurrence of syncope; for, if ignorant, he will close the wound by suture, and prevent the outward escape of blood in the subsequent hemorrhage which is almost sure to occur as soon as reaction is established; and then the patient may be drowned by his own blood, or be asphyxiated by the formation of a clot. Cases made fatal in this way by too assiduous attention are on record; and Liston mentions an instance in which his own assistant, despite the principles that he had inculcated over and over again, came near losing a patient in this way, whom Liston saved by cutting the sutures and removing the clot which impeded respiration.

It is, therefore, an important point in the management of cut-throat cases, that the parts should not be united by suture until it is certain that all danger from hemorrhage is over. Ligation of the bleeding vessels does not always secure immunity from later and recurrent hemorrhage. If the hemorrhage is excessive, and unrestrainable by styptics and the ligation of vessels within reach, perhaps the best treatment would consist in tying the carotid, a measure which has frequently been carried out with satisfactory results. If the wound be large, it is allowable to unite its outer portions, leaving the central portion open; and if there is any disposition towards bagging of a horizontal wound, the pockets at its lower lip should be divided vertically, so as to prevent the burrowing of pus; for these wounds never unite by first intention, and more or less extensive suppuration is to be expected. When all danger of hemorrhage is over, the parts on either side of the opening in the air-tube can be brought together with adhesive strips and sutures, if necessary,—ample room being left for drainage; but no suture should be taken through the cartilage, or even its perichondrium, inasmuch as sutures are not well borne in these situations, and either cut themselves out or produce so much local irritation as to necessitate their removal. After the parts are in apposition, the head is to be slightly flexed, and retained in its position by light bandaging. The parts should be covered with light gauze or something of the sort, to modify the temperature of the inspired air. The patient's apartment should be warm, and the air moist.

Inflammatory reaction is to be treated on general principles. If from any cause asphyxia be threatened, the trachea should be opened below the seat of injury, and a canula introduced.

If there is no wound of the pharynx or œsophagus, food can usually be taken by the mouth, even if the epiglottis has been wounded; if these structures have been injured, liquid nourishment can be given by a stomach-tube; and, under extreme circumstances, by the rectum. Medicine, if required, can be given by enema or by hypodermic injection. Care must be taken to catch the expelled secretions in a soft sponge or mop, and to cleanse the wound frequently. Despite the utmost attention, however, more or less bronchitis will ensue, attended with copious secretion. Opium may be employed to restrain the secretion and allay cough; but care must be taken not to push it far enough to obtund the sensibility of the larynx and trachea, and thus favor the passage of fluids into the larynx. These wounds heal slowly. They often leave a fistulous passage, requiring the use of caustics, or even calling for plastic operations. Sometimes stenosis ensues, necessitating the permanent use of a tracheotomy-tube.

Gunshot wounds of the larynx and trachea occur in the same localities as incised wounds. The primary hemorrhage is less, but the secondary hemorrhage may be profuse, especially in wounds of the trachea, on account of injury to the thyroid gland. The main source of danger is from the inflammatory swelling of the superjacent soft parts. The resulting bronchitis is apt to be very severe, with profuse muco-purulent secretion.

Severe gunshot wounds are liable to be complicated with contusion or laceration of important nerves, and there may be paralysis or spasm of the intrinsic laryngeal muscles, interfering with respiration, independently of œdema or inflammatory

products; and this condition of things may demand tracheotomy, in order to render respiration independent of the patency of the larynx.

FRACTURES OF THE LARYNX AND TRACHEA.

Fractures are the result of mechanical injury. They are simple or multiple. The thyroid and cricoid cartilages are fractured most frequently. The prognosis is always grave, especially when the cricoid cartilage is implicated; possibly because the injury which breaks this strong circular cartilage produces great contusion of the soft parts.

The symptoms of fracture of the larynx are, essentially, spasmodic cough, frothy sanguinolent expectoration, dyspnœa, dysphonia or aphonia, dysphagia, and emphysema in some cases attended with laceration of the mucous membrane. Cartilaginous crepitation is produced on manipulation. It must be borne in mind that the upper horn of the thyroid cartilage is occasionally found disconnected from the body of the cartilage; and sometimes, as in a specimen exhibited by the lecturer, it is entirely absent.

Some fractures terminate fatally at once or in a short time. If the patient survive the immediate injury, tracheotomy ought to be performed to lessen the risk of danger from sudden asphyxia. In many instances the emergency calling for this operation has presented suddenly, and the patient has been lost because there was no one present to perform it. The fragments should be carefully replaced, but no sutures should be taken in them, for the same reasons given in treating of wounds of this region. In fact, the general after-treatment would be very much like that adopted for wounds.

The symptoms of fracture of the trachea are similar, in the main, to those of fracture of the larynx: severe dyspnœa and rapidly extending emphysema. The prognosis is very unfavorable. The treatment is much the same as for fracture of the larynx, including the prompt laying open of the wound, and the insertion of a tracheotomy-tube, or the performance of tracheotomy below the seat of injury.

RUPTURE of the trachea from the larynx, or of one or more intercartilaginous spaces, occasionally happens under severe mechanical injury, such as pressure, or a kick on the parts. Spontaneous laceration has also been known to occur. The main diagnostic symptoms are dyspnœa and emphysema. Tracheotomy is usually called for. The cases usually terminate fatally.

CONTUSIONS of the larynx and trachea sometimes occur as the result of accident or violence. They are usually amenable to rest and emollient applications. Spasm of the glottis may ensue and necessitate the operation of tracheotomy.

FOREIGN BODIES IN THE LARYNX AND TRACHEA.

Foreign bodies almost always gain access to the larynx and trachea from the outside, but sometimes from the inside also. Thus, a detached bronchial gland, a piece of necrosed laryngeal or tracheal cartilage, may become a foreign body to all intents and purposes. Parasitic worms, insects, etc., sometimes crawl into the air-passages; and sometimes matters from the stomach may be vomited into the larynx. The foreign body remains loose, or may lodge in some portion of the passage. The symptoms of the presence of a foreign body in the air-tube are: cough, pain, spasm, and dyspnœa; and the diagnosis is usually dependent upon the suddenness of the onset. Auscultation of the larynx, trachea, or lungs, sometimes affords the evidences of obstruction; and occasionally the foreign body, especially when lodged, can be seen in the laryngoscopic image. Impaction of a foreign body in the pharynx or œsophagus may give rise to all the subjective symptoms of a foreign body in the larynx or trachea. Exploration with the finger and with the stomach-tube will soon set this point at rest.

Spontaneous expulsion of a foreign body often takes place, but it is hardly safe practice to trust to this result, in view of the accidents which may occur if it is retained in the air-passages, on the one hand, or caught in the glottis, on the other.

If the substance inhaled has been a soft vegetable material capable of absorbing moisture, its prompt removal should be effected. In fact, it is hardly doubtful that prompt removal is the best practice in all cases of this kind; for the life of an individual with a foreign body in the air-passages cannot be said to be safe. If the foreign body can be seen with the laryngoscope, it may, in favorable instances, be removed with the laryngeal forceps, or hook; but only, as a rule, when situated above the glottis.

Under most circumstances, an opening should be made in the trachea, large enough to admit of the free play of instruments for extraction. The opening should be at least an inch and a quarter in length in the adult, and an inch in the child. If the foreign body is in the larynx, laryngotomy may do; but sometimes it is necessary to divide the wings of the thyroid cartilage to a certain extent. Sometimes the foreign body is expelled by cough as soon as the air-passage is opened, and it may escape either by the mouth or by the wound. Sometimes the foreign body presents at the wound and is seized in the forceps. If it does not make its appearance at the point of incision, it is customary to slap the patient on the chest and back while the face is turned downwards, and thus to dislodge the body and favor its expulsion.

If these efforts fail, delicate forceps or blunt hooks are carefully passed into the tube to search for the body and draw it out. They should always be warmed before they are introduced. Care must be taken not to impact the body in the manipulation. These efforts must not be continued many minutes. If they fail, the wound is to be kept open by ligatures in its edges, fastened together at the back of the neck, or by hooks or wires similarly secured. The parts are covered with a light compress, to exclude the entrance of cold air. Then renewed efforts at extraction are made in a few hours, or on the next day. The wound should be kept patulous until the

foreign body is expelled. If this does not take place soon, a tracheotomy-tube can be worn, and withdrawn when the body shows signs of dislodgment. For the first few days of keeping such a wound open, the patient should be confined in a warm room with some moisture in the atmosphere.

ORIGINAL COMMUNICATIONS.

STRABISMUS CONVERGENS:

WITH SPECIAL REFERENCE TO ITS ÆTIOLOGY.

A Paper read before the Northern Medical Association of Philadelphia.

BY S. D. RISLEY, M.D.

THE term "strabismus" was formerly applied to all deviations of the optic axis from parallelism. In later years, however, since the paralyses of the ocular muscles have been more carefully studied, and with a better understanding of the causes of squint, all deviations depending upon paralysis or muscular insufficiency from any cause, or mechanical obstructions to the movements of the eyeball, have been excluded, and the term limited to that group of cases *characterized invariably by the fixing of one eye upon the observed object, while the other deviates from its normal direction,—the degree of movement in both being equal and normal.*

Either of the muscles of the eyeball may be the immediate agent in causing the deviation; but the two by far most frequently demanding attention are the rectus internus and rectus externus, and these in point of frequency in the order of their naming. They pull the eye in opposite directions, and the abnormal deviations produced are termed *strabismus convergens*, or where, the internal rectus acting, the eye is carried towards the nose, the cornea being buried more or less deeply at the inner canthus, and *strabismus divergens*,—where, the external rectus acting, the eye is rolled outward, and the cornea buried at the outer canthus. Of these the first occurs more frequently; and it is to this variety of deviation I desire to invite your attention, and more particularly to *its cause* than to its diagnosis or treatment.

In well-marked cases of strabismus there can be no difficulty in recognizing the deformity. The only question which needs any share of our attention is the differentiation of true strabismus from other deviations of the optic axes. The more frequently occurring conditions liable to lead to error in diagnosis are the paralytic affections of the muscles of the orbit, orbital tumors, and certain optical defects giving rise to apparent strabismus. The principle upon which the differential diagnosis is to be made out is contained in the definition already given. In no other affection will the same conditions be met. In paralysis of the external rectus of one side we shall find convergence of the corresponding eye, while the opposite eye fixes the object, but there will not be the same degree of movement in each eye. In orbital tumors we may have convergence, but the movements of the ball will be impeded. Lastly, in cases of apparent convergent squint it will be found that not one but both eyes converge, and that though both eyeballs are deviated inward, nevertheless both eyes are fixed upon the same object. Again, this condition is associated with high degrees of myopia.

The question usually to be decided is between deviation from paralysis of one external rectus and true strabismus. To render the subject more intelligible, suppose a case of convergence of the right eye. The patient observes you steadily with his left. If an opaque card or the hand be placed before the left or fixing eye, the right or deviated eye will move outward, if the case be one of strabismus, in order to fix upon any object at which he may be directed to look, placed directly in front of him, and the left eye will be found to have made an associated movement inward, as the before converging eye moved outward to fix upon the observed object, and to have now become the squinting eye. If the extent of the *primary* deviation be measured, and afterwards the associated movement of the healthy eye, or *secondary* deviation as it is called, they will be found equal. On the other hand, if the case be one of paralysis of the external rectus of the right eye, when the healthy eye is covered the left will make an irregular oscillatory or zigzag movement, brought about by the action of the oblique muscles in the vain attempt to move the eye outward. If the case be one of *partial* paralysis, it will probably move outward to some extent—a line or a line and a half—in the attempt to fix its visual axis upon the object. The sound eye, however, it will be found, has made an associated movement inward of $2\frac{1}{2}'''$ to $3'''$. This greater *secondary* deviation is explained by Soelberg Wells in the following manner. "As the external rectus of the unsound eye is insufficiently innervated, it demands a greater impulse of the will to bring about this diminished movement than if the innervation were normal. But this increased impulse also affects the associated healthy internal rectus of the opposite eye, and is enabled to produce a greater amount of movement in the eye. Hence it is an invariable rule in all cases of paralysis that the secondary deviation considerably exceeds the primary, whereas in the common concomitant squint the two are exactly equal." There will also be a marked difference in the mobility of the eyes in following an object moved rapidly from one half to the other of the field of vision, and in slight cases valuable aid may be afforded by the diplopia consequent upon the want of concord in the optic axes: *e.g.*, when the object is moved over into that part of the field of vision corresponding to the partially paralyzed muscle, the eye, being no longer able to follow the object, becomes fixed at some point, while the other eye follows the object. In this way a convergent squint is produced, and homonomous double images are seen. For it will be seen that the rays of light from the object fall upon the inner portion of the retina, accustomed only to receive rays coming from the outer part of the field of vision: hence the image is from habit projected in that direction.

The operation for the relief of the deformity is

without doubt of comparatively modern origin. Empiricism, however, seems to have led the van of the army of more scientific and worthy investigators by nearly a century. About the middle of the last century a famous charlatan entered Paris, and in conspicuous announcements proclaimed himself oculist to the King of Great Britain, and claimed to have discovered "a mode of restoring squint eyes by a prompt operation, almost without pain, and without the fear of any accident." (Giraldés, by Velpeau.) He passed by means of a needle a silken thread under a fold of the conjunctiva, and with the scissors divided the included tissues. The sound eye was then covered with a plaster, the squinting eye was restored, and by the clamorous crowd it was pronounced "a miracle." (Secat.) He is said to have given as a reason for the operation that "strabismus is caused by an inequality of the muscles of the eye, and in order to cure it one of them must be weakened." After this the operation seems to have been forgotten, until our own Gibson suggested it in this country, and performed the operation in four cases in 1818. But he was subsequently induced, through the influence of Professor Physick, to abandon it. (Smith.) European writers, however, justly claim for Stromeyer the credit of having in 1838 brought the operation into general notice. He himself claimed the operation as something entirely new. At the time of his minute description of his operation he had only performed it on the cadaver. To Dieffenbach belongs the honor of establishing the success of the operation, publishing his first essay in 1839. After these came Phillips, Baumgarten, Velpeau, Guerin, Guthrie, Liston, Elliot, Hall, and others of the continental and British surgeons; and it was done in the United States by Willard Parker, of New York, in 1840, and soon after by Pancoast, and others of this city. The literature of the subject furnishes a sad record, not only for the patients who sought relief at the hands of these eminent surgeons, —for their efforts were far from being uniformly successful,—but also because of the grossly exaggerated accounts of success contained in the published reports of the continental surgeons during the first years after the inauguration of the operation for squint. Others, led by these reports to too sanguine hopes, were not sparing in their denunciations of those who had led them astray. A strong partisan feeling crept into their writings. The crimination on one part, followed by epithets of "ignorance," "incompetency," "tyro," etc., on the other, manifested a spirit strongly at variance with the genius of the profession, and one which always forms a barrier to the progress of truth. I would that thirty years later we were entirely free from the same spirit! But how often the enthusiastic reports of brother practitioners prove but the uncertain light of the *ignis fatuus*, luring others on to naught but disappointed hopes and the criminations of their patients! Truth can never be established save upon the foundation of honest observation. Exaggerated reports of success can only, sooner or later, lead to disclosure and just denunciation; while the truth, even though it be a report of negative results, is a valuable contribution to our science.

In works on general surgery written within the last decade, we find repeated asseverations of personal success, and unmerited censure visited upon less fortunate or perhaps more honest rivals in the operation for strabismus. How little consideration is due these claims to unvarying success the sequel will show. The statements are exaggerated, or the cases have not been watched sufficiently long after the operation. Velpeau, as early as 1840, in estimating the proportion of failures to cures, etc., seems to have grasped the real state of affairs leading to exaggerated reports of success, and to guard against it lays down two important considerations:—1, the careful determination of the nature of the case operated upon; 2, to exhibit the patient cured after three months. He had repeatedly seen cases of vaunted cures return after a short interval with the eye turned outward, after having before squinted inwardly, or who still continued to squint as before. Alluding to these experiences, he says, "These things at Paris have brought odium upon the operation, so that its intrinsic value, after unexampled popularity, begins to be mistrusted."

Ignorant as they were of the ultimate cause of the deviation of the optic axes in a vast majority of cases, it is not surprising that surgeons should have looked to the ocular muscles for the relief of a deformity in the production of which they were obviously the immediate mechanical agents. Stung by their want of success, and by the frequent recurrence of the deviation, they were led to perform extensive dissections of the ocular muscles and their cellular investment. Thinking the return of the squint due to the action of the oblique muscles, or the internal fibres of the superior and inferior recti, *these* were divided, and many times with extensive denudations of the eyeball, but with no better results, —the deformity returning quite as frequently, often the eye squinting in the opposite direction, and the deformity magnified by the extensive denudations. After such wholesale laceration of the muscular attachments, the eye was permitted, in many cases, to bulge forward: hence we find to-day, in many of the books, this condition given as one of the results of the operation for the cure of strabismus. It is not the case, however, after a judiciously performed tenotomy.

Owing to this liability to recurrence, and the imperfect results attained even in the so-called successful cases, many surgeons gave no encouragement to patients applying for relief.

Such was the uncertain estimate placed upon the value of the operation for the cure of strabismus, when in 1858 Professor Donders, of Holland, during his investigations upon asthenopia, discovered its cause in the hypermetropic structure of the eye. Henceforth strabismus was to lose its importance as a distinct affection, and to be regarded as a symptom merely of an ulterior condition.

In the normal eye, rays of light emanating from distant objects—*i.e.*, parallel rays—are, without effort of the accommodation, brought to a focus upon the retina by the refracting system of the eye,

and a clearly-defined inverted image of the object is thrown upon the layer of rods and cones of the retina,—a condition necessary for distinct vision. Regarding the eye as an optical instrument, it resolves itself into a refracting apparatus, the cornea and lens, and a receptive screen, the retina.

It is obvious that, in order to have perfectly-defined images, there must be harmony between the refracting power and the distance at which the screen, or retina, is placed.

Thus, if the eye be regarded as a camera of one inch in length, it must have a refracting power which would be equal to a lens of one inch focal distance, in order that images of distant objects be accurately pictured upon the rods and cones of the retina; or, having a refracting power equal to a lens of one inch focal distance, it is obvious that any variation in the position of the retina, without a change in the refracting apparatus, would lead to imperfectly-defined images upon the retina, and thus to indistinct vision.

It has been demonstrated that there are frequent departures from this harmony, so necessary to perfect vision and comfortable use of the eyes.

Eyes which enjoy this harmony are termed emmetropic. There are two other conditions, however, which have been repeatedly demonstrated,—the one in which the visual axis is too short, the other in which it is abnormally long. In the first, the converging cone of rays is intercepted before reaching the principal focus, and in consequence a circle of diffusion results, instead of the perfectly-defined image. In the second, the rays of light, having reached the focal point, cross over and reach the retina as diverging rays, again giving a circle of diffusion.

The term hypermetropia has been given to the first; the second is the anatomical condition in myopia.

It is the hypermetropic eye with which we have most to do in this paper.

These conditions may be illustrated optically by a schematic eye, consisting of two cylinders, the one moving freely within the other. At the anterior extremity of the outer cylinder is placed a plano-convex lens, with a focal distance equal to the length of the cylinder. Over the posterior end of the contained cylinder is placed a ground-glass screen, upon which is delineated an inverted but accurate image of the distant burning jet of gas. As the relative position of the screen is changed by moving the inner cylinder, either within or without the principal focus of the lens, we get no longer the perfect image, but a circle of diffused light.

Now, what we see here demonstrated in this schematic eye also takes place in the human eye in hypermetropia and myopia. When the ground-glass screen is moved within the principal focus of the lens, the condition is optically hypermetropic. In order to again secure an accurate image, the refractive power and the distance of the screen must be made to harmonize, which may be done by placing an additional lens in front. In the hypermetropic eye, nature has furnished this additional lens through the power of accommodation, by virtue of which the lens becomes more convex, its refracting power being thereby increased.

It is not my purpose in this paper to explain the mechanism of accommodation any further than the mention of the fact that this power of accommodation is resident in the ciliary muscle within the eyeball. The contraction of the fibres of the muscle relaxes the suspensory ligament, and allows the elastic lens to expand, its convexity thus becoming greater, and its refractive power increased.

It follows, from what has been said, that hypermetropic eyes are able, without tension of the accommodation, only to focus rays which enter it more or less convergently. Theoretically, light is reflected from bodies to the eye in a diverging direction; but so long as the rays diverge at any angle no greater than 5′, they are practically parallel, and in investigations upon the dioptrics of the eye are so considered. Rays of light emanating from infinitely distant objects are regarded as parallel, and in the emmetropic eye such rays are without tension of the accommodation focussed upon the retina. With the hypermetropic, however, it is different. As we have seen, the principal focus of the refracting system of his eye is behind the retina, and the refractive power must, therefore, be increased in order to focus parallel rays upon the rods and cones. Now, the amount of accommodation required to accomplish this may be regarded as a deficit with which the hypermetropic individual commences life. With the approximation of objects to the eye, for the maintenance of binocular vision, the axes must converge more and more. At the same time, the rays of light from the object enter the eye more and more divergently, calling for an increase in the accommodation in a direct ratio to the approximation of the object.

Now, together with the increase in the convergence, there is also an increase in the power of accommodation. That this is true may be demonstrated in various ways. If a prism be placed before the eye of a hypermetropic individual (*e.g.*, one who is unable to focus parallel rays with $V=\frac{1}{4}$ for distance (Sn. $\frac{15}{XX}$)), with its base outward, in order to avoid diplopia he squints inward, and the acuity of vision comes up to 1, or Sn. $\frac{15}{XV}$. With the excessive convergence thus induced, he can bring his faculty of accommodation more powerfully into action, and is able thereby to focus parallel rays upon his retina.

When we wish to put our power of accommodation upon the stretch, there is a strong tendency to increased convergence, even in emmetropic eyes; but it is pre-eminently so with hypermetropic individuals who are compelled to employ continually more or less tension of the accommodation. An emmetropic person may readily convince himself of this by producing an artificial hypermetropia by means of negative glasses placed before the eye, sufficiently strong to quite neutralize the power of accommodation. With every effort at distinct vision through them, double images confuse him, and he must either be content with indistinct vision, or permit a convergent squint. This will be rendered more

apparent by placing a prism with its base outward before one of the glasses. Momentarily double images will appear, to avoid which the eye squints inwards, and distinct vision is attained as by magic.

The same thing often occurs in hypermetropia, the one eye squinting inwards in order to increase the power of accommodation.

It is in the fact, then, *that "the more strongly we converge, the more powerfully can we bring our faculty of accommodation into action," that we find the tendency to abnormal convergence in hypermetropic persons, and in hypermetropia that we find the secret of strabismus convergens.*

That these theoretical considerations do not lead us astray we are assured by a number of circumstances. In the first place, it is rare to find a case of strabismus convergens which is not associated with hypermetropia. In fact, so nearly constant is this, that the oculist at once sets about the determination of the degree of hypermetropia when consulted by persons for the deformity of squint eyes, with very much the feeling that *so many cases of strabismus convergens, so many cases of hypermetropia.*

I have seen but one case of pure strabismus not depending upon opacities which was not associated with hypermetropia. This case consulted me for convergent alternating squint. His acuity of vision, as determined by Snellen test-types, was normal, and in each eye I could detect no manifest hypermetropia, either by trial with glasses or by means of the ophthalmoscope. There was no visible cause for the deviation,—*e.g.*, opacities in the media,—and the fundus appeared healthy. There was no want of power in any of the ocular muscles.

I proposed tenotomy, but suggested to him the possibility of his being obliged to wear spectacles in the future, to prevent the return of the deformity, *so certain* was I, from past experience, that hypermetropia was the hidden cause of the deviation. After thorough paralysis of the accommodation, to my surprise I was unable to detect the slightest degree of hypermetropia. The parallelism of the axes was restored by the operation, but there was no need for spectacles. I relate this case as an exception, and for the sake of the contrast it affords. Donders found that hypermetropia existed in seventy-seven per cent. of the cases, and, in concluding his remarks, states that cases of deviation were included "which it is not usual to refer to the head of strabismus convergens, as tolerably recent cases of paralysis of the abducent muscle, too strongly convergent, nearly immovable myopic eyes, etc. I therefore," he says, "do not hesitate to declare that it is exceptional to find strabismus convergens without hypermetropia."

(To be continued.)

UTERO-PLACENTAL VACUUM.

BY H. G. LANDIS, M.D.,
Niles, O.

WHOEVER has seen a boy's leather "sucker" will readily notice on reflection that it is of very similar mechanical construction to the placenta. As we used to make the aforesaid instrument, it was a circular piece of leather with a string centrally attached. When made pliable by moisture, and applied firmly to a brick, traction on the string resulted in a vacuum beneath the leather, which was so forcibly held down to the brick that the latter could readily be raised from the ground by it. For the sure performance of this feat a flat surface on the object to be lifted was an essential; and this requisite being absent in the womb is the probable cause of the rarity of the accident which is exemplified below, and which seems to deserve the name prefixed to these remarks; for the placenta has every other requirement for its occurrence.

February 9.—Was called to Mrs. M., one hour and a quarter after childbirth. Her labor had been short, but the midwife in attendance could not deliver the after-birth, although she had spared no effort. I found the placenta partially protruding from the womb by a hard conical eminence a little to one side of the attachment of the cord. Seizing the cord, I made as much traction as it would bear, aiding this by external pressure on the uterus, squeezing the womb, etc., all of which had no effect. The idea of a vacuum then coming to my succor, I perforated the placenta, and on withdrawing the hand from the vagina it was at once and rapidly expelled as far as the perineum without any traction at all. No clots followed, and the placenta was of medium size.

Cazeaux mentions almost every possible cause of detention, but not this. Although I have never noticed it unmistakably before, I am inclined to think that some of the cases generally ascribed to the apparent great bulk of the placenta due to the formation of clots, are rather of this nature. In the case just mentioned, the predisposing cause appears to have been a capacious vagina which readily admitted the external air. The immediate cause was traction at an improper time, not before the placenta was detached, for it evidently had been, but before its edge could be felt at the os uteri, after which this or indeed any other of the difficulties in delivering the after-birth are unlikely to occur.

March 15, 1873.

TRANSLATIONS.

A REVIEW OF DOLBEAU ON PERINEAL LITHOTRITY.*

BY S. DUPLAY.

(Translated from the *Archives Générales de Médecine*, Paris, January, 1873.)

"WHEN we long study any subject, we end by becoming penetrated with it, and succeed in forming for ourselves an entirely personal opinion. The ideas which result from such an experience are the product of reflection, and we may believe they are properly our own. Yet these same ideas may be found either in germ, or fully expressed by those who have preceded us in writing upon the same subject."

Thus M. Dolbeau expresses himself in the introduction of his book; and doubtless some little surprise will be felt, after having seen these judicious remarks, which appear to exclude the idea of a new invention, when we

* "On Perineal Lithotrity, or a New Mode of Operating upon Calculous Patients." Paris, 1872.

note that the author retains for his book the double title of "Perineal Lithotrity, or a *New Mode of Operating upon Calculous Patients*." I should fear to enter anew upon a discussion which seems to me exhausted, and which has been the subject of an extensive article in this journal,* endeavoring to establish that perineal lithotrity is not, properly speaking, a new operation, either as conceived or as executed. But if I refuse to admit that the operation may really be a new mode of operating upon calculous patients, and if consequently I criticise this sub-title of the work of M. Dolbeau, I have not the least intention of detracting from the merit of the author, who, in reviving an old idea, in perfecting the mode of the operation and the instruments, has made perineal lithotrity an established operation, and one which seems to me to be destined to effect a material advance in the treatment of vesical calculi.

Although the operation of perineal lithotrity has been described several times by M. Dolbeau, either in his "Treatise on Stone" or before the Society of Surgery, it was indispensable, in order to popularize the method and to furnish the proper data to judge of its value, to present in all its details the manual of the operative procedure, the natural sequelæ of the operation, its accidents and complications, and finally the results which have been accomplished by it up to this time. Such has been the object of M. Dolbeau in publishing the memoir of which we give here a short analysis.

Before describing the operation of perineal lithotrity, the author devotes several pages to two points of anatomy and physiology intimately connected with the execution of the operation. These two points are: first, the exact situation of the bulb of the urethra in relation to the perineum, the anus, and the rectum; second, the dilatability of the neck of the bladder.

In relation to the first point, M. Dolbeau concludes from his numerous investigations that lesion of the bulb is extremely difficult to avoid in the various incisions designed to approach the bladder in the median line. The incision which he adopts to certainly avoid the bulb is [in the median line] only two centimetres at most, and terminates at the junction of the skin and mucous membrane at the margin of the anus. This incision, which would be absolutely insufficient to open the bladder, serves only to approach easily and puncture the membranous portion of the urethra in the first step of perineal lithotrity.

The dilatability of the neck of the bladder has been on the part of the author the object of interesting researches, especially in relation to the operation he advocates. The dilator which he employs, and which is really an excellent instrument, combines the following three qualities:

1. It distributes the dilatation over a great number of points at the same time.
2. It produces a cylindrical dilatation.
3. Finally, it permits the practice of dilatation with slowness, care, and uniformity.

In using this instrument, M. Dolbeau has convinced himself that the neck of the bladder can be dilated to two centimetres, and that beyond this limit the dilatation is accompanied with ruptures which vary with the volume of the instrument. This opening of two centimetres, although insufficient to admit of the passage of a large calculus, permits the introduction of powerful lithoclasts.

I cannot follow the author in the detailed description of perineal lithotrity. This embraces three principal stages:

1. The opening of the bladder.
2. The breaking up of the stone, or lithoclasty.
3. Extraction of fragments and of the calculous débris.

It is necessary to add the preparation for the operation, and the subsequent care of the case.

This subject is treated with the greatest care, and the author has not omitted any of the details of the operation, describing the difficulties which may be encountered, and the dangers which it is necessary to know how to avoid. Indispensable directions will be found for those who would practise this operation with safety, in relation to the instruments, the part of the assistants, the position of the patient, and, lastly, as to the execution of the different steps, the understanding of which, moreover, is facilitated by the introduction of numerous figures in the text.

One of the most remarkable peculiarities of perineal lithotrity, when it is properly practised, is the simplicity and the benignancy of the sequelæ of the operation.

The singular fact that none of the patients have had incontinence of urine, I have verified myself. Desire to urinate is more or less frequent, and the urine then runs off by the perineal wound. By the second or the third day a part of the urine passes by the penis, and within an average period of two or three weeks the recovery is complete.

The immediate complications of the operation are few in number, and not serious in character, as pain, vesical tenesmus, and retention of urine. As to consecutive accidents, M. Dolbeau mentions ecchymosis of the scrotum and perineum, inflammation of the perineal opening, not unfrequently attended by incontinence of urine [? see preceding paragraph.—ED. *P. M. T.*], and, lastly, purulent infection, which was observed in two of his patients.

After an exposé so complete of the manual of the operation, and of the sequelæ of this operation, we should wish to find in the work of M. Dolbeau a critical statement of the indications for and against the operation. The author has endeavored to do this in a chapter on the comparative value of perineal lithotrity; but, if it seems to me decided that "perineal lithotrity" is superior to the several cutting operations, its comparative value to lithotrity by the natural passages has yet to be established, and this important point has, it seems to me, not been sufficiently elucidated.

The memoir of M. Dolbeau is terminated by the relation in detail of the operations which he has practised up to this time, and which number thirty cases, of which twenty-five were recoveries and five deaths.

(Signed) S. DUPLAY.

(We are enabled to add to those of M. Dolbeau three successful cases of this operation by J. W. S. Gouley, M.D., New York.† This gives a mortality in thirty-three cases of 15.15 per cent. In 544 cases of lithotrity performed in the usual manner there were 41 deaths,‡ or a mortality of 7.54 per cent.)

NOTES OF HOSPITAL PRACTICE.

CLINICAL NOTES.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by W. H. WINSLOW, M.D.

DETACHMENT OF THE RETINA.

M. W., a woman, æt. 27 years, in good general health, came to the clinic complaining of dimness of sight, which had come on suddenly some two months previously, before which her vision had been perfect; though she had always been myopic.

*Median Perineal Lithotrity, by Dr. Spillmann: *Archives Générales de Médecine*, 1869.

†See New York *Medical Record*, No. 4, vol. viii. p. 75.

‡See Ashhurst's Surgery, p. 845.

Externally, the eyes appeared healthy. Upon testing with Snellen's types, in the left $V = \frac{20}{L}$, in the right $\frac{20}{LX}$, and the field of vision in the latter was found contracted above the horizontal line and to the inner side; but she could count fingers below.

Ophthalmoscopic examination revealed, in the left eye, a large sclerectasia posterior, to the outer side of, and almost surrounding, the disk, with considerable engorgement of the retinal vessels.

In the right there was found a detachment of the retina below the horizontal line. She was ordered to wear blue coquille glasses and to give her eyes perfect rest; rather with a view of avoiding injury to the other eye, than with any expectation of improving the right; and to take elixir of quinine, iron, and strychnia, to improve her general condition.

Another case applied for relief, February 11, in the person of J. W., a robust man, æt. 28 years, a farmer by occupation, who was also myopic and had lost his left eye by a powder-explosion ten years previously, which slightly injured the right.

Vision in the right had always been good, until one warm day last summer, when he got overheated while at work in a corn-field and sat down to rest upon the fence.

Soon after he noticed a dimness of vision, which increased much when he jumped down, and he had to be led home. There had been no improvement since, and vision was only quantitative.

The left eye presented a phthisis bulbi, and the right showed a small corneal opacity,—the result of the injury when the left was destroyed.

The ophthalmoscope disclosed an old detachment of the retina projecting into the vitreous from the lower portion of the fundus, of a dirty grayish appearance, with atrophied, blackish, thread-like vessels.

It rolled up in waving folds, entirely obscuring the deeper portion of the chamber. As nothing could be done to improve or restore his vision, he was recommended to apply at the Asylum for the Blind.

SYMPATHETIC CHOROIDITIS.

H. McG., a man, æt. 60 years, in good health, by occupation a hostler, was struck in the left eye by a carriage-shaft, October 10, 1872, which caused much pain, inflammation, and total loss of vision, and procured his admission into the hospital.

There was much chemosis; a superficial slough of two-thirds of the cornea occurred, with hypopion, for which paracentesis at the lower edge of the slough was performed to evacuate the pus and relieve tension, and a solution of atropia was instilled often.

Pus reaccumulated, distressing symptoms returned, and the paracentesis was repeated; the slough deepened, and much pain supervened, for which the artificial leech was applied to the temple, and the slough gradually healed under slight stimulation by a solution of nitrate of silver.

Vision was destroyed in this eye, but was $\frac{20}{XX}$ of Snellen's in the right.

The patient now left the hospital without permission, and did not return until November 11, when the conjunctiva of the injured eye was found inflamed and thickened, and an anterior staphyloma forming. He complained of dimness in the right, hitherto healthy eye, and, upon testing this, $V = \frac{6}{C}$ only; and, as there was much pain in the left, the latter was immediately extirpated.

After recovery from the operation, the right eye was examined by the ophthalmoscope, and well-marked choroiditis found to the outer side of disk, irregular pigmentation, and white spots of sclerotic here and there, the result of choroidal atrophy, with a crescent forming at the margin of the optic nerve. The operation improved vision at first.

The patient was retained in the hospital under alterative treatment and observation, and now, April 1, 1873, has a distinct sclerectasia posterior, a slightly-cupped disk, with diminished capillary circulation, and an almost complete atrophy of the pigment throughout the fundus, with vision little more than quantitative.

TRAUMATIC RUPTURE OF THE URETHRA—HYPOGASTRIC PUNCTURE OF THE BLADDER—EXTERNAL URETHROTOMY—RECOVERY (De Bousseau: *Union Médicale*, 1872, No. 81; quoted from *Centralblatt für Med. Wiss.*, No. 36, 1872).—A mason, 52 years old, ruptured his urethra, by stumbling and falling. A few weeks subsequently, a stricture had formed so tight that the finest bougies would not penetrate it, and there was an almost complete retention of the urine. External urethrotomy was essayed, but the stricture could not be found, on account of the presence of so much thick cicatricial tissue; and, as most unfavorable symptoms of all kinds set in, puncture of the bladder above the symphysis pubis was resorted to, and the wound in the perineum was kept open.

On the fourth day after the first operation, the same was renewed, as follows: A curved sound was introduced through the wound in the hypogastrium into the bladder, and, guided by the finger placed in the rectum, into the neck of the bladder, and then into the urethra, until the instrument rested on the posterior side of the stricture. The incision was then boldly made through the stricture down upon the blunt end of the probe. The wound healed rapidly, and the recovery was complete.

Three similar cases of operation have been reported by Chopart, Baseilhac, and Voillemier.

LEBERT ON TUBERCULOSIS IN THE FEMALE GENERATIVE ORGANS.—Dr. H. Lebert (London *Medical Record;* from *Arch. für Gynaecologie*, vol. iv. part iii., 1872) has an interesting paper on this subject. From thirty-three observations, he has been able to follow the history of the reciprocal influence of pregnancy and tuberculosis. He concludes that tuberculization of the internal generative organs among women may be the principal primitive localization, or may coincide with pulmonary tuberculization, or finally may be secondary to this.

The malady described as tuberculosis of the neck of the uterus is not demonstrated; it represents most frequently a caseous degeneration of the epithelium of the glands of the neck. The influence of pregnancy and parturition upon tuberculosis shows itself most often between the ages of twenty and thirty years, more between twenty-five and thirty years, and even between thirty and forty years. When the tuberculous process exists in young women, it may be arrested, but generally takes on new development under the influence of pregnancy, often of the first, but sometimes later. It is exceptional that women who have formerly had tubercle resist the influence of repeated pregnancies; their infants are generally feeble and tuberculous.

Pregnancy generally moderates advanced phthisis, but the initiatory phases of tuberculosis follow their course without being hindered during the term of pregnancy. Abortion, pregnancy, and parturition accelerate in three-fourths of the cases the progress of phthisis. Pregnancy has no notable influence upon the localization and the form of tuberculosis. The sad influence of parturition shows itself especially in the cases where pregnancy had favored the development of tubercle. Women affected with tuberculosis have little milk; they cannot generally nurse; the children are weak, scrofulous, and, later, tuberculous.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, APRIL 12, 1873.

EDITORIAL.

OUTSIDE INFLUENCE.

THE appointment of Resident Physicians at the Philadelphia Almshouse Hospital is prescribed to be by *concours*. The applicants are examined by the Medical Board of the hospital, and the result of the examination is accurately reported, by means of a system of merit-marks, to the Board of Guardians of the Poor, under whose control the affairs of the hospital are conducted. It would naturally be supposed that, if the examination means anything at all, it means that those candidates who obtain the highest marks should be, as a matter of course, chosen. Such in fact has been the case the last two or three years,—the highest on the list having been appointed by the Guardians. On a recent occasion the examination was duly held, —the number of vacancies being five,—and the report made; but a motion that the five candidates of highest merit should be declared elected was negatived by a very large majority.

A ballot was then gone into, and four gentlemen were chosen, to the exclusion of the highest applicant on the whole list; but on the second ballot he was elected by a bare majority. It appeared that there was outside influence used, and that letters on behalf of a certain candidate had been written to some, perhaps all, of the members of the Board of Guardians, at the instance of that power, scarcely "behind the throne," which, not content with shaping the legislation of States, is now grasping at the appointments of a poor-house.

Now, we submit that this is all wrong. It is wrong for the institution, since the object of the examination system is to secure for it the services of the *best* men as resident physicians. It is a wrong to the applicants, since they are led to believe that they depend for their success upon their merits alone. It is an insult to the attending staff, since they undertake to grade the candidates according to the amount of ability displayed by each one, with the sole object of guiding the Board of Guardians to a judicious selection.

If the *concours* mean nothing,—if the idea is that it is a mere revision of the action of the Faculties by whom diplomas have been granted to the young physicians seeking the residentships,—then let the system be abandoned, or at any rate remodelled, so as to be a consistent whole. It is by just such admissions of extraneous influences that fairness in scientific and professional competition is most effectually hindered.

A REMARKABLE BOOK.

OUR readers will, we trust, pardon us for digressing for a moment from graver themes, to refer to a work of fiction of unusual interest to the medical profession. The book itself—"Middlemarch," by George Eliot (Mrs. G. H. Lewes)—is a very remarkable one, its merits lying neither in plot nor in incident, but in the wonderful power of subtle analysis of character and motive, and of pithy expression of truth, which stamps its every page. Its chief interest to the physician, however, will be found in the fact that one of the leading personages in the story is a young and well-educated "general practitioner" in a small provincial town in England.

With singular accuracy and force the author has sketched his early bias towards the study of medicine; his hopes and disappointments; his ambitions and failures; his professional associations; the effect of his marriage, to a woman who could not appreciate any of his higher qualities or interests, upon his own development. The final catastrophe of his career in Middlemarch, most ingeniously conceived, is as admirably described.

Novelists have often introduced physicians among their characters, and sometimes made them play important parts in the evolution of their plots. When tested by the light of practical experience, however, the defects of these representations are often singularly absurd. Thus, Mr. Charles Reade makes a surgeon detect a depression of the skull, from injury, "just at the left of the *pia mater*." (!) So far as

we know, Mrs. Lewes has outdone all her predecessors in the *vraisemblance* of her medical hero and his incidents.

As a relaxation from the physical and mental strain involved in the practice of medicine, a certain amount of novel-reading is an invaluable resource; and we are sure that many a hard-working doctor will find himself the better for the perusal of the remarkable book to which we have ventured to devote these few lines.

THE FEE-BILL REPEALED.

AT their stated business meeting on the 2d inst., the College of Physicians of Philadelphia repealed that part of their By-laws relating to the Fee-bill. By this action, which took nobody by surprise, they did not set aside all rule as to the amounts to be charged for medical services, since there is on this point a general understanding in the profession. Nor did they by any means preclude the adoption at any future time, should experience show it to be desirable, of a substitute for the repealed tariff.

The established scale of charges being unsatisfactory, and the substitutes proposed being equally so, the substitutes were laid on the table, and the old tariff set aside. Every man is now at liberty, as indeed he was before, in our opinion, to place such value upon his services as he thinks his patients will be willing to acknowledge. This is as it should be; and we trust the unwritten law will be found a sufficient guide.

OUR London letter for this week has not been received.

CORRESPONDENCE.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—On the morning of the 1st of last December, I was summoned by D. Graham, notary public, to attend an inquest at the residence of the late Mrs. Eliza Collier, one and a half miles southeast of this place. Entered the house,—which is a frame building, eighteen by forty, southern front, front piazza and shed room, back way; all built of pine; about twenty years old. In the right-hand room, about nine feet from the fireplace, lay the remains—*head*, the bones of *left shoulder, outer* two-thirds of *left clavicle*, two or three upper *ribs*, and left *arm* and *fore-arm*, with the *hand*. The skeleton of *fore-arm* was lying along the chest with the hand, semi-flexed—as though it had been carried to the mouth—while drawn up under that piece of clavicle was the heart, about *half its natural size*. Under the ribs I found the left lung drawn up to the size of my fist, and looking like the upper leather of an old shoe which had been burned. Spine flexed upon itself, and pelvic bones; latter supported by the *partially burned sleeper*, while the head—face half upwards and towards the front door—lay on the floor beyond the burned opening; as I attempt to represent by the enclosed drawing. [The drawing could not be conveniently inserted here.—ED.] In the pelvic cavity was a bunch of *small* intestines *roasted*. On the ground beneath was the upper half of one *femur* and some few fragments of *ribs;* but, although I gathered up with a hoe the surface covering of the ground, there was no sign of phosphate of lime. The only sign of *flesh* was the face,—bloated, like the men who were blown up in the mines (military) at Petersburg, Va., so that her own daughter could not identify it,—and left hand. This is positively all that remained at daylight—when the burning floor was extinguished—of her whom the servant had left the night before in her usual health. I could have put it all into a small candle-box.

Medical Examination.—Occiput denuded to the superior line by fire, from which point I dissected off the scalp, and found ecchymoses—suggillations?—at a point midway between the eminence and posterior superior angle of left parietal, superficial bruise at anterior angle of left eye, and another just above the eyebrow, showing, by the grit thereon, that they were from striking against the floor. Pupils *perfectly* normal: I do not profess to be able to tell by the reflection, but certainly there was no appearance of quailing, as they are said to show from fear; there was no sign of compression or concussion,—nothing, in fact, that would justify my opening the skull. *Protruded* tongue seemed to be inflated, rough like sand-paper, and tied around—so to speak—at its roots by the constrictor oris. Opening the heart, I found the auricles empty, while the ventricles were filled with a mass, size of a walnut, about the consistency of a lump of prepared chalk, and Spanish-brown color, as shown by marks made therewith on the table. Strange to say, there was not a shade of difference between venous and arterial masses.

Evidence.—I find several bruises,—as shown the jury,—neither of which indicate violence at all; certainly not sufficient to have produced death. And, as the eyes are natural, together with the fact that the skull is entire, we conclude that there have not been any very severe blows on the head; that ecchymosis which I have pointed out to you is natural in the dead subject.

I have seen similar condition of the tongue in a man of General Casey's division, who was killed at Seven Pines. Dr. De Lean, General Lee's Medical Director, named it, but I do not remember any technicality by Dunglison, nor that it is pathognomonic. I have seen it in violent peritonitis from gunshot wounds of intestines,—once in a case of wound of bladder,—soldier under my care at Camp Jackson Hospital, near Richmond, Virginia. The absence of blood-stains *anywhere* precluded the idea of lacerated or incised wounds. She came to her death by fire; and the complete destruction, without leaving even the constant phosphate of lime from the bones, with such slight in-

jury to the house (*and most of that must have occurred after the body was destroyed*), especially in such a cold, dry time, together with the *positive evidence* that no other fuel, not even her wearing-clothes, was used; furniture, etc., all intact; bed showing that it had been occupied; candle *nearly entire*, and matches on the mantel-piece; no evidence of any unusual fire having been in the fireplace, but just the contrary, for the few remaining chunks were not scattered; nor did the abundant *cobwebs* show any new deposit of soot, as they would had there been much smoke in the room,—so far exceeds anything which I have seen (and I have seen bodies that had been exposed to the concentrated heat of four stories which were burned beneath them; and, as I learn from one of this jury, so far exceeds the destruction of a man whom he saw chained to a tree inside of a kiln of light wood, several banks thick, all saturated with spirits of turpentine before being fired), together with the previous history of the person, who, by the way, was about seventy-five years of age, brings me, notwithstanding the teachings of Dupuytren, Liebig, Bischoff, and others, to believe that it is a case of what may be truly called *spontaneous* (*?*) *combustion*; stranger by far than those of Devergie, in his work on "Médecine Légal." In some respects this case is very much like the one reported by Le Cat,—inasmuch as a party who was seen at the house after sun-down, on the best of terms, and, as I am assured, stopped (on his way from this place) there as late as 9 o'clock P.M., saying to his comrade that he was going to have a big hot whisky or ginger dram with the old lady, with whom he was going to work next year, is suspected of, or rather the Governor of the State offers a reward for his arrest, calling him the murderer of Mrs. Eliza Collier. Mrs. Collier's, however, differed from all other cases of *so-called* spontaneous combustion in one very important particular. She was the merest shadow of any living person I ever saw (I had reduced a dislocation of the left shoulder for her only a short while before, and remember that she was almost devoid of *visible* muscle). Again, she was some nine feet from the fireplace, and there was no burnt place between herself (where she was) and the fireplace. There was, however, another burnt place, where her shawl had been partly or entirely burned up, but it was some six feet from the other place,—rather towards the northeast corner of the room.

It is certainly a very strange case. I know but little—though of same name—of the old lady, save by report. She had property; had seen trouble from various causes; and *report* says she drank heavily; she lived alone, refusing to allow any of her family (and she had several daughters) to stay with her. As to actual *spontaneous* combustion of the body, I do not believe in any such; spontaneous is not the word; but there must have been some predisposing cause for such burning, and I trust you will be able to throw light on it.

I send you an unvarnished statement of facts, with full permission to cull anything therefrom which you may consider worthy of your most excellent journal. Hoping you will remember the haste in which it has been scratched, and pardon its very many deficiencies,

I am, very respectfully, etc.,

J. M. COLLIER, M.D.

ORION, GEORGIA, February, 1873.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MARCH 13, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. H. LENOX HODGE exhibited *multilocular ovarian cysts* removed from a woman 26 years of age, by ovariotomy, on Wednesday, March 5, 1873. The patient was doing well when last heard from.

The cysts are very numerous,—some of large size containing others within. The fluid was thick and ropy, varying in consistence and color in different cysts. The specific gravity was about 1037. Upon application of heat and nitric acid it coagulated very firmly, showing a large quantity of albumen. A microscopical examination detected granular cells about the size of white corpuscles, and granules in irregular-shaped heaps.

The pedicle was about four inches long, about two inches wide, and one-fourth of an inch thick.

The other ovary was healthy, and no enlarged Graafian follicle detected; and yet three days after operation the menstrual discharge appeared, after an absence of nearly eight weeks.

Dr. R. M. BERTOLET asked for some further particulars with regard to the granular cells alluded to, whether they seemed to be provided with a cell-wall, and what was the character of their granular contents, whether they were coloring-matter or drops of fat.

Dr. HODGE replied that as to a minute explanation, he must leave that to the microscopists; but, as far as he could tell, the cells resembled the colorless corpuscles of the blood; and, if the latter has a cell-wall, these granular cells also might have a cell-wall. He thought that the granules they contained were neither fat nor coloring-matter. He believed they were the cells which Dr. Atlee, or rather Dr. Drysdale in Dr. Atlee's work on "Diagnosis of Ovarian Tumors," considers pathognomonic of ovarian tumors. Dr. HODGE professed to know very little about the histology of ovarian fluids. He thought Dr. Koeberlé, of Strasbourg, had made the most careful examinations with which he was familiar.

He thought that it was the inclination of all pathologists to consider ovarian cysts more or less connected in their development with the Graafian follicle; and he was therefore inclined to trace the contents of the cyst to an alteration in the original contents of the follicle, although he knew that cysts occur in the fibrous structures of the ovary as well as in other fibrous structures.

Dr. JOSEPH G. RICHARDSON said that he had found these compound granular corpuscles in several cases of ovarian tumor; but they were generally larger than the colorless corpuscle, usually twice as great in diameter. He believed their granular contents fatty, and in their entirety they resembled the compound granular corpuscles found in inflammatory and other degenerative diseases of the brain. He had not been able to discover a cell-wall.

The PRESIDENT asked Dr. RICHARDSON whether he attached any importance to them.

Dr. RICHARDSON said they might be of value in determining ascitic fluid from that of ovarian cysts.

Dr. HODGE said that Spencer Wells, of London, Keith, of Edinburgh, and Atlee, of Philadelphia, all declare there is no real difficulty in distinguishing ascites from ovarian dropsy by physical signs and other means; but in distinguishing ovarian tumor from fibro-cystic growths of the uterus, if this cell exists in the ovarian and not in the fibro-cystic tumor, it must be a valuable aid to diagnosis.

Dr. JAMES TYSON regretted very much that these views should have been promulgated under a name so deservedly well known as that of Dr. Atlee. For he was satisfied that it was opening an elementary question in pathology long since settled, the effect of which can only be to mislead for a time those ignorant of the subject; for those who have had any comparative experience can scarcely be misled. He had enjoyed an opportunity, through Dr. Mears, of making a number of examinations of ovarian fluid derived from the cases of Dr. Atlee, and was perfectly familiar with the cell spoken of as the "ovarian cell," which is nothing more than the ordinary *compound granule-cell* formerly improperly called the "exudation corpuscle" or "inflammatory corpuscle" of Gluge, and for some time determined to be nothing but a fattily degenerated cell, in whatever locality found, and liable to be found in any locality. It is of course more frequently seen in situations where rapid tissue-change is taking place, either in inflammatory or non-inflammatory softening. Of the former, instances are seen in the so-called exudation of pneumonia or acute nephritis, as well as acute softening of nervous centres; and of the latter, examples are found in the chronic fatty degenerations of the nerve-centres, of the kidney, and, indeed, all fatty degenerations. Perhaps the most typical form of compound granule-cell is the colostrum corpuscle, which is the fattily degenerated epithelial cell of the milk-duct, and which by a further fatty degeneration forms the fat-globules of milk.

In ovarian cysts it is the fattily degenerated epithelial cell derived slowly or rapidly from the epithelial lining of the cyst, and is sparse or abundant according as the contents of the cyst are transparent and thin, or opaque and dense, or intermediate in both these respects. But it is also found, though of course in smaller numbers, and perhaps less marked in its degree of degeneration, in the most transparent serum from the pleuritic or peritoneal or any synovial cavity, when it is derived from the epithelial lining of such cavities. And when these secretions are altered in quality or quantity, the number of these cells is increased. Recently Dr. Tyson had tapped a patient with pleurisy in his ward at the Philadelphia Hospital, drawing off a large quantity of sero-purulent fluid, which, in addition to pus-corpuscles in different stages of degeneration, contained numerous typical compound granule-cells. So also, although present in limited number in the normal peritoneal fluid, in the altered fluid of ascites they are more numerous; and it is equally apt to occur in the contents of fibro-cystic tumors of the uterus.

Dr. JOSEPH G. RICHARDSON said that if the compound granule-cell is a fattily degenerated cell we would not be apt to find it in those fibro-cystic tumors which have no epithelial lining.

Dr. BERTOLET remarked that all these fibro-cystic growths have an endothelium.

Dr. J. EWING MEARS said he was glad to hear the discussion on this subject. It had been one of great interest to him during the past three years, and, through the opportunities kindly presented to him by Dr. Atlee, he had given much time to its investigation. He regretted exceedingly that he could not accept the views announced in the work of Dr. Atlee, to which allusion has been made, and which gives to the fluid of ovarian cysts a pathognomonic product in the so-called *ovarian cell*. No one would welcome the discovery of such a product with greater satisfaction than himself. He would regard it as a great advance in ovarian pathology, and it would render the diagnosis of ovarian disease both certain and easy. He had submitted to Dr. Tyson, and examined with him, fluids from ovarian cysts, and could agree with all that he had said upon the subject.

Dr. MEARS had examined specimens of the fluid contents from all varieties of cystic disease of the ovary, and he believed that by a simple analysis they could be separated into solid and fluid constituents: the former consisted of cells from the epithelial lining membrane of the cyst, and the latter was serum with a greater or less amount of albumen (in addition to that in the serum normally) derived from the cells which had undergone disintegration. These cells, undergoing fatty degeneration, were detached from the epithelial membrane, and their forms became altered. In the fluid of simple unilocular cysts he had observed the cells in the incipient stage of fatty degeneration, showing nearly normal forms with but few granules. In this variety of cyst the tissue-change is not rapid, and as a result the fluid is usually not very consistent,—about like serum,—and contains but few cells.

In multilocular cysts, on the contrary, where the degenerative change is very active, the fluid is found to be very viscid, and contains a much greater proportion of albumen, with great quantities of granule-cells and granular débris from the broken-down cells.

The physical properties, as well as the microscopical characters, are to be considered in distinguishing ovarian fluids from those taken from the abdominal cavity in simple ascites, in inflammatory conditions, or in fibro-cystic tumors of the uterus. Neither can be taken separately as positive evidence; together they are confirmatory, and become important aids in diagnosis.

OBITUARY.

DR. RENÉ LA ROCHE.

IN the death of Dr. La Roche, on the 9th of December last, the medical profession lost one of its most distinguished ornaments. Born in 1795, in this city, in which his father, a graduate of Montpellier, in France, and afterwards a resident of St. Domingo, practised medicine, he did not commence the study of his profession until 1817, having been for several years engaged in commercial business. He graduated at the University of Pennsylvania, in 1820. During the War of 1812 he was captain of a volunteer company in Colonel Chapman Biddle's regiment. Soon after graduation, he became connected with Dr. Chapman's Summer School, as it was familiarly called, and was one of the most active members of the "Kappa Lambda Association of the United States," under whose auspices the *North American Medical and Surgical Journal* was for several years issued. When this society ceased to exist, the Monday Evening Club—the first medical club, it is said, in the United States—was founded, consisting of Drs. Wood, Hodge, Meigs, Bache, Condie, Coates, Bell, and La Roche, with whom Dr. Bond was soon after associated, and, at a much later date, Dr. S. H. Dickson. Dr. La Roche was for a long time an active member of the College of Physicians, one of the original members of the Pathological Society, and at one time its president, and a member of numerous medical and literary societies at home and abroad. He had been president also of the State Medical, County Medical, and Philadelphia Medical Societies. As a contributor to the literature of his profession his

services are memorable, for he was not only the author of several voluminous treatises, but he was indefatigable in his researches on a vast variety of subjects, which, when published in the medical periodicals of the day, attracted universal attention by their erudition, clearness, and practical application. There was hardly a respectable medical journal in the country whose columns were not at some time or other enriched by valuable contributions from his pen, embracing not only original classical papers, but elaborate reviews. His large works on Yellow Fever and on Pneumonia were and are standard authorities on these interesting topics, being almost exhaustive in the amount of information embraced in them. He was always writing, almost to within a few hours of his death, and has left behind sufficient material for several volumes, on subjects which are not hackneyed, but in their originality exhibit the natural inclination of his mind to trace out new and unbeaten paths in literature. His posthumous writings include material for several volumes on Music and its Uses in Medicine, on Fevers, on the Plague of Athens, a History of Schools from the revival of medicine to the present time, etc. He had written a great deal on music, and was at one time the possessor of a very extensive and valuable musical library. His health had always been delicate, without the evidence of positive disease, and he died of prostration, after several months of feeble physical condition, with a mind calm and clear to the very moment of dissolution.

REVIEWS AND BOOK NOTICES.

NOTES ON ASTHMA: its Nature, Forms, and Treatment. By JOHN C. THOROWGOOD, M.D. Lond. Second Edition. Philadelphia, Lindsay & Blakiston, 1873.

The main object of this excellent little work is to discuss the treatment of that distressing malady, asthma; at the same time, however, a short but explicit description is given of its pathology, and the different varieties in which it occurs. The reader is referred for a complete history of the disease to the late Dr. Hyde Salter's monograph on the subject.

Our author teaches that the asthmatic paroxysm is due to spasmodic contraction of the bronchial muscles, and compares this to colic. Spasmodic asthma is looked upon as a pure neurosis, and is to be treated accordingly. The treatment most strongly recommended during the asthmatic paroxysm consists in inhalations of chloroform, nitrite of amyl, and the fumes of burning nitre paper. The author also advises smoking the leaves of the datura stramonium and datura tatula, but prefers the latter as being safer and more effective. As internal remedies during an attack, antispasmodics such as the datura tatula, belladonna, and chloral are the only articles considered worth using.

As curative means, climate and rigid attention to diet are deemed of primary importance. The patient is directed to eat but lightly, the main meal being early in the day, and supper not later than 6 P.M., consisting of bread and milk or a cup of cocoa or tea with plenty of milk. But little drink is permitted. However, two or three hours after dinner, some "toast and water or pale brandy and water may be allowed." By the way, why is it that so many English writers refer to "toast-water" as a beverage which it must be a privilege for a patient to quaff "*ad libitum*"?

Speaking of diet, it strikes us that the amount of food allowed the asthmatic by Mr. Pridham, as quoted by our author, would not long sustain an ordinary man taking even a moderate degree of exercise. It consists of six ounces of stale bread, four ounces of meat, and a half-pint of tea or coffee in the twenty-four hours. This writer also permits the use of "toast and water" after dinner.

The medicines which Dr. Thorowgood has found of the most benefit are nerve-tonics, such as oxide of zinc, arsenic, quinine, phosphorus, and the salts of iron and silver. Arsenic and the oxide of silver seem to have proved most useful. Of course it is only for those cases of a purely nervous or spasmodic nature that such remedies are advised. The author has also found sulphur and the hypophosphites of soda, potash, and lime of great advantage in asthma of long standing.

We should regret very much being reduced to the necessity of administering to a patient the "oleum sulphuratum" of the Ph. Lond. 1824, "a brown viscid substance with a most unpleasant smell," or even the sulphuret of potassium, pills of which the writer admits to have a "disgusting smell."

Iodide of potassium is recommended where there is any structural change; and in cases of "bronchial asthma," *i.e.*, where there is inflammation of the bronchial tubes in addition to asthma, mercury is highly esteemed. The cases given as illustrative of the curative effects of this drug are not, however, entirely convincing of its value.

The use of compressed air in the treatment of the different forms of asthma is favorably spoken of, but no mention is made of the inhalation of pure oxygen. Dr. Andrew H. Smith, in the *New York Medical Journal* for April, 1870, quotes several cases of asthma where this gas was successfully used.

A chapter is added in this edition on laryngeal and tracheal dyspnœa, and one on "hay asthma" concludes the book. Change of air is considered the best treatment for the latter. Numerous other remedies are mentioned, as inhalations of ether and camphor, the spray of a solution of quinine (as advised by Helmholtz), and various snuffs.

The book is well and agreeably written, and notes of a number of cases are introduced to illustrate the disorder and its treatment.

WHAT WOMEN SHOULD KNOW. A Woman's Book about Women. Containing Practical Information for Wives and Mothers. By MRS. E. B. DUFFEY. Crown 8vo, pp. 320. Philadelphia, J. M. Stoddart & Co., 1873.

Exactly who Mrs. Duffey is, does not appear from this book. She certainly has not had a medical education, since she betrays ignorance of some of the commonest things taught to every student; and yet she has had some experience, some reading, and some acquaintance with professional men (and women). In the volume before us, there is certainly much that is sound and trustworthy; but there are many topics which are of vast importance, as for example the treatment of croup, that of abnormal presentations of the fœtus, and that of post-partum hemorrhage, which are discussed in a way that would give no adequate idea of their gravity. And there are not a few statements to which we could by no means subscribe.

LESSONS IN ELEMENTARY ANATOMY. By ST. GEORGE MIVART, F.R.S., etc. 12mo, pp. 535. London, Macmillan & Co., 1873.

The author of this little work, while he has intended it for the use chiefly of teachers, and for readers of either sex, not already acquainted with anatomy, has sought to make it answer also for students of medicine who wish to look into the relations existing between man's form and the structures of other animals.

He seems to have accomplished his task with ability and judgment, although, in our opinion, a combination of this kind is not the most useful form of publi-

cation. We should have preferred two books,—one an altogether elementary hand-book, for non-medical readers, and the other a full and comprehensive treatise, for the regular student of anatomy. The omission of all reference to the generative organs, while very proper in a school-book, will diminish the value of the work for those who are inquiring more deeply into the subject. The excellent typography and abundant illustration of this volume add greatly to its attractiveness.

GLEANINGS FROM OUR EXCHANGES.

TEISSIER ON BRONCHIAL HEMORRHAGE AS A CAUSE OF PULMONARY PHTHISIS (London *Medical Record*, February 5; from *Lyon Médical*, January 5, 1873).—M. Teissier brings forward some cases in support of the view that broncho-pulmonary hemorrhage may be an occasional cause of pulmonary phthisis. In the earlier part of the paper, the author alludes to what has been stated by other observers (Trousseau, Bricheteau, Graves, Jaccoud, Bouchard, and Niemeyer) in favor of this mode of origin of the disease. In quoting Niemeyer, he advances the teaching of this pathologist, that the irritation of the lung or bronchial mucous membrane by foreign bodies is an occasional cause of phthisis, and that of these foreign bodies coagulated blood is the most frequent; further, that in those cases in which very acute phthisis immediately follows an attack of pulmonary hemorrhage in persons previously healthy, the inflammatory disorganization of the lungs is determined by the presence of the coagulated blood.

In stating his own views, M. Teissier says that bronchial hemorrhage is accompanied or followed by active hyperæmia, which is capable of giving rise to caseous pneumonia, or even to tuberculosis, in persons *predisposed to phthisis*. Whilst admitting that bronchial hemorrhage is much more frequently a consequence than a cause of phthisis, and that it may occur in individuals otherwise healthy without producing any results, he maintains that in comparatively rare cases it undoubtedly plays an important part in the causation of this disease in debilitated or scrofulous persons, or in those in whom there exists the least tuberculous tendency.

The experiments of MM. Perl and Lipmann, which show that blood injected into the trachea of dogs and rabbits produces no other results than a slight amount of local emphysema and pigmentation of the epithelium, are, according to M. Teissier, no evidence that bronchial hemorrhage is incapable of inducing phthisis in man; inasmuch as in the latter there is presumably some disease of the bronchial or pulmonary blood-vessels, which is in itself a condition tending to produce more or less permanent congestion. No anatomical evidence, however, is adduced in proof of the existence of any vascular change.

In speaking of the results of his own clinical experience, the author states that he has met with cases in which hæmoptysis appeared to be the precursor and determining cause of phthisis. He gives an account of three cases.

The first case is that of a man, aged 40, who was the subject of hæmophilia. He had from time to time attacks of hæmoptysis, and in the course of two years he presented the physical signs of phthisis. The disease terminated fatally.

The second case is that of a healthy man, aged 45, in whom profuse hæmoptysis occurred whilst he was travelling in the mountains of Auvergne. The hemorrhage lasted for a few hours, and he soon regained his usual health. Two years later, the hæmoptysis returned, and continued at intervals for about three weeks, and shortly afterwards physical signs of pulmonary consolidation were for the first time discovered. Death ensued in three months.

The last case, which is the most conclusive, is one in which pulmonary hemorrhage, caused by external violence, terminated in phthisis. A robust and perfectly healthy man, aged 33, was injured on the right shoulder by the fall of a tree. He was simply bruised; there was no fracture or dislocation. The injury was immediately followed by very profuse hæmoptysis, and he continued to spit blood more or less for eighteen months. He then began to suffer from dyspnœa, cough, and expectoration; and a physical examination of the chest discovered commencing disease at the apex of the right lung. The signs of pulmonary disorganization gradually increased.

The author concludes by again stating that it is only in those in whom there exists some predisposition to phthisis, that hemorrhage can determine the disease; and adds that, even when hæmoptysis is a *consequence* of phthisis, the presence of the blood often greatly aggravates the disease, and tends to hasten a fatal termination.

COHNSTEIN ON DETERMINATION OF THE LIFE OR DEATH OF THE FŒTUS (London *Medical Record*, Feb. 5).—Dr. Cohnstein (in *Arch. für Gynäk.*, vol. iv., 3d part, 1872) states that the information whether the fœtus is living or dead during pregnancy, but especially during parturition, is often of the greatest importance; and where hearing the fœtal heart and feeling the fœtal movements fail or are uncertain, ascertaining the temperature *in utero* will often very materially assist if not decide us in determining the question. It is a fact that the temperature of the fœtus *in utero* is higher than the maternal temperature, and experience proves that the careful introduction of the thermometer into the uterine cavity, between the membranes and the wall of the uterus, is unattended by harm. We have thus a ready mode of settling the question when it is otherwise doubtful.

SUCCESSFUL EMPLOYMENT OF PROPYLAMIN IN ACUTE ARTICULAR RHEUMATISM.—M. Dujardin-Beaumetz, in a recent communication to the Société Médicale des Hôpitaux of Paris, related the results of his trials of propylamin in acute and subacute articular rheumatism. They had been very successful; the pain had first diminished, then the movements became easier, and the swelling in the joints disappeared rapidly. The duration of the attack seemed generally to be greatly shortened, and, on an average, the disease was stopped in about eight days. Dr. Dujardin-Beaumetz generally uses the following formula: propylamin, ten to thirty grains; tilleul water (infusion of linden-tree leaves), three ounces; syrup of morphia, five drachms; essence of aniseed, sufficient quantity.

M. A. BÉCHAMP (London *Medical Record*, January 29) read a note before the Paris Academy of Sciences, December 30, on the alcoholic and acetic fermentation of the liver, and on the physiological alcohol of human urine. The author has obtained from two litres of urine, from a man of fifty, enough alcohol to estimate.

AT Kinkiang (on the Yangtse), Dr. Shearer (*Edinburgh Medical Journal*) has been using strychnia in cases of opium-poisoning, with a success which bids fair to rival the magnificent results obtained by Dr. Johnston at the Chinese Hospital at Shanghai from atropine.

AN Anatomical Society has lately been founded in Madrid by Dr. Velasco, who is also the editor of a periodical, of which the first number appeared last month,—the *Anfiteatro Anatomico Español*.

MISCELLANY.

WOMEN AS PHARMACISTS.—From a notice concerning the employment of women in pharmacy, in the *Gazette Médicale de Paris* for December 28, 1872, it appears that after female doctors we shall have female pharmacists: the one necessitates the other, though we should have thought that the mistress of pharmacy would have preceded the doctoress. However that may be, the School of Industry for Women, established in Amsterdam in 1869 by the Society of Public Usefulness (*Société d' Utilité publique*), has already qualified five young women for the pharmaceutical profession, and is now engaged in educating seven others for the same vocation. Doubtless others will not be slow to follow this example. Already German societies, instituted to obtain means of existence for women, think of uniting to present to the Federal Council of the Empire a petition praying that women should be authorized to follow the profession of pharmacist, or, at least, that of dispenser. It seems that there is a complete dearth of dispensers in the little German towns, and especially in the country. The new measure which is demanded should have the effect of obviating this state of things.

A BRAZILIAN PATRIARCH.—According to the *Anglo-Brazilian Times*, at a recent census in Brazil, there was found living at Cape Frio, in the province of Rio de Janeiro, a man named José Martino Coutinho, who was born on May 20, 1694, and was consequently 178 years old. He was in perfect possession of his mental faculties, and complained only of stiffness in his knee-joints. The account states that he fought when young against the Dutch at Pernambuco, and that he remembered the principal events of the reigns of John V., Joseph, and Maria I. (*circa* 1750–80). He is said to have been married six times, and to have had forty-two children, and to be able to count in his descendants 123 grandchildren, 86 great-grandchildren, 23 great-great-grandchildren, and 20 children of the latter.

DR. EDWARD FLOURENS RIVINUS, who died at Hyères, France, on the 14th of February, was an extremely well-educated physician, and at one time practised medicine in this city. He was a man of property, and had retired from active professional life for many years. He was one of the managers of the Episcopal Hospital.

MAHOMET-ALI-BEY, an Arab surgeon, who recently cured the mother of the Khedive of Egypt of a serious malady, received from his patient a fee of five thousand dollars, and has been raised by the Viceroy to the rank of a Pasha.

THE suspension of the New York *Psychological Journal* is much to be regretted. It certainly did not owe its ill success to lack of ability in its editorship, or of interest and importance in the subjects to which it was devoted.

SIR HENRY HOLLAND is 84 years old, being the senior Fellow of the Royal Society.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending April 5, 1873, were 332; 182 adults, and 150 minors. 10 were of bodies brought from the country; making the mortality of the city 322. Among the assigned causes of death were:

Consumption of the Lungs	63
Other Diseases of the Respiratory Organs	48
Diseases of the Circulatory Apparatus	17
Diseases of the Brain and Nervous System	64
Diseases of the Digestive Apparatus	19
Zymotic Diseases	28
Typhoid Fever	6
Diseases of the Urinary Organs	5
Casualties	6
Cancer	4
Suicide	1
Debility (including "Inanition" and "Marasmus")	25
Still-born	8
Old Age	15

(The interments reported for the week ending April 6, 1872, were 418.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)	
Mar. 30	53.5°	43.0°	29.84 in.	
" 31	57.0	47.0	29.89 in.	
April 1	59.0	39.5	30.17 in.	
" 2	70.5	55.0	29.83 in.	
" 3	64.0	43.0	30.07 in.	
" 4	59.0	44.5	30.26 in.	
" 5	64.0	43.5	30.24 in.	(Thunder-storm.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 1, 1873, TO APRIL 7, 1873, INCLUSIVE.

COUES, ELLIOTT, ASSISTANT-SURGEON.—Assigned to duty, as Medical Officer and Naturalist, with the expedition for the Survey of the Northern boundary. S. O. 68, A. G. O., March 31, 1873.

BOOKS AND PAMPHLETS RECEIVED.

Text-book of Physiology, General, Special, and Practical. By John Hughes Bennett, M.D., F.R.S.E., etc. etc. With twenty-one Photo-Lithographic Plates. Small 8vo, pp. 606. Philadelphia, J. B. Lippincott & Co., 1873.

Family Thermometry: A Manual of Thermometry for Mothers, Nurses, Hospitals, etc., and all who have charge of the Sick and of the Young. By Edward Seguin, M.D. Crown 8vo, pp. 72. New York, G. P. Putnam & Sons, 1873.

First Decennial Catalogue of the Trustees, Faculty, Officers, and of the Alumni of the Bellevue Hospital Medical College, of the City of New York, from 1860 to 1871. Compiled by Frederick A. Castle, M.D., Historian of the Alumni Association. Preceded by a History of the College, from its Organization to 1872, by Leroy M. Yale, M.D., President of the Alumni Association. 8vo, pp. 66. New York, D. Appleton & Co., 1873.

The Logic of Medicine. By Edward S. Dunster, M.D. (Reprint from the New York *Medical Journal*, March, 1873.) 8vo, pp. 31. New York, D. Appleton & Co., 1873.

The Credit Guide. Philadelphia. Vol. II., No. 1. April, 1873.

Report of Commissioners appointed to Select a Site and Build an Asylum for the Insane of New Jersey. November 1, 1872. 8vo, pp. 15.